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POCKET COMPUTER NEWSLETTER

POCKET COMPUTER MEMO PAD PROGRAM

"Practical applications," everyone cries, "Show us some practical applications."

STOP RIGHT THERE!

Here's a program for the Radio Shack TRS-80 Pocket Computer that opens up a whole slew of practical applications.

LIKE WHAT?

One way a PC (pocket computer) really helps me out on a daily basis is by serving as an electronic memo pad. I used to keep 'umpteen scraps of paper containing notes, reminders and messages to myself around the house and at my office. Besides being unwieldy, the system had one other major fault. Me. I was always misplacing the most important scraps of paper or discarding them at the wrong times.

Enough of that. I don't carry the scraps of paper around any more. I carry a pocket computer. I paid enough for it so that I am not likely to accidently throw it away. I use it to store my important notes electronically. Appointment dates and times, sales contacts, phone numbers, shopping lists, data obtained in the lab while on the job, all these various kinds of information can now be stored in my TRS-80 PC.

The information stored is retrieved at my command. If I want to recall someone's phone number, I enter that person's name and the PC plucks it out for me. If I need to pick up some groceries on the way home from work, my PC reminds me just what it was I was supposed to get. If I need to temporarily record some data from an instrument in the laboratory, it goes into the PC for later recall when it is time to write a report.

When information is no longer needed, it is removed from the pocket computer's memory.

Believe me, I now save a lot of paper.

HOW IS IT DONE?

A relatively straightforward program enables the TRS-80 Pocket Computer to perform these useful chores. The program enables the PC to perform three basic functions.

1.) It allows the entry of data into the computer in the format of a *key word* and a related *item*. For instance, I can assign a person's name as a key word. The person's phone number might then be the related item.

2.) The program enables you to edit information in its memory. You can add to, change or delete the data whenever desired.

3.) Finally, you may have the computer locate an item related to a key word. Type in a key word, such as a person's name, and the program will locate that person's phone number for you.

ALL ABOUT THE PROGRAM

The program that performs the functions is shown in Listing 1.

Some discussion of this coding would probably be beneficial for those readers who are not familiar with some of the traits of the TRS-80 Pocket Computer. On a line-by-line basis, here is what goes on:

Line 600 provides a means for the user to clear out the contents of the entire memo pad if desired (by calling on the subroutine at line 750). Note that a check is not made for any response other than a 'Y' for yes. This is all that is required because the TRS-80 PC simply skips to the next *numbered line* in a program if a null input is received. Remember it goes to the next *line* on this condition, not merely the next statement in a line! The coding used in line 600 provides a "failsafe" format. You must enter a 'Y' in order clear out the contents of the memo pad. Any other input protects the current data.

Line 610 gives the user the option of either editing an entry or using the 'find' (search) mode to locate an item.

Line 620 along with 630 directs the program appropriately depending on whether the user selected the 'edit' or 'find' option. Since the TRS-80 PC does not have the 'ELSE' function in IF...THEN statements, the contents of these two lines cannot be combined.

Line 640 enables the user to specify which entry stored in memory is to be edited. The program as listed is designed to allow up to twenty key words and related items to be stored at a time. Thus, line 640 expects the number entered at this point to be within the range 1 to 20. If it is not in this range, line 650 causes the query to be repeated. When the number is in the allowed range, the balance of line 640 contains directives to set up pointers to the indicated storage locations (array elements) in memory.

Line 660 displays the number of an entry, the key word and the associated item. The TRS-80 PC has a restriction on the specification of the second and subsequent variables in a PRINT or PAUSE statement. The

variable symbols may not contain mathematical operators. That is why the variables named B and C are established in line 640. They can then be used here in line 660 to define the string variables A$(B) and A$(C).

**Note: If you have encountered problems when using the PRINT and PAUSE statements to display the values of variables augmented by operators, be sure to read the note at the top of page 57 in the TRS-80 Pocket Computer operating manual. (Radio Shack manual number 26-3501.)

The remainder of line 660 asks for a new key word. Since the TRS-80 PC will skip to the next numbered line in a program if a null input (pressing the ENTER key without having entered any other characters) is received, the current key word will remain unaltered unless the user types in a new key word. This is an appropriate response for this application.

Line 670 asks for a new data item. The current item is left unchanged if a new item is not entered.

Line 680 directs the program back to the edit or find option upon the conclusion of an editing operation.

Line 690 initiates the portion of the program used to search the contents of the memo pad for a specified key word. It asks the user to input the key word of interest.

Line 700 directs the program to search through all the positions in the memo pad storage area looking for the key word indicated by the user. The PAUSE statement is used to provide the user with a glimpse at each entry during the search process. This method was selected so that a user could review the memo pad's entire contents if desired. Of course, it is not necessary for a user to monitor the display. An IF statement in the latter part of the line tests for a match with the desired key word. If found, the program branches to notify the user.

**It should be noted that the PAUSE statement does considerably slow down the speed of the search operation. It adds approximately 0.85 seconds for each entry scanned. If you do not want to be able to visually scan the contents of memory, simply remove the PAUSE statement and associated display parameters in the line.

Line 710 displays the message: "NOT FOUND..." followed, at the end of the display line, by "C/R" which is used to remind the user to tap the ENTER key when ready to proceed.

Line 720 directs the program back to the option-selecting statement. A separate line is assigned to this GOTO statement. Remember, the TRS-80 Pocket Computer skips over all the remaining portions of a line if it encounters a null input. If the GOTO statement had been included in the previous line, the null entry, which is specifically asked for, would cause the program to skip right over the GOTO directive! Got it?

Line 730 causes the PC to give an audible beep if the specified key word is found. The entry number, key word and associated data item is then displayed. Again, the terminator C/R is used to remind the user to press the ENTER key in order to proceed.

Line 740 directs the program back to the option-selecting statement.

Line 750 consists of a subroutine used by line 600 to clear out everything in the memo pad if the user selects that option. The subroutine simply puts a single 'space' character in each array element reserved by the program.

USING THE PROGRAM

To get things started type RUN 600 or use the abbreviated form R.600. (Of course, you can also use the DEF mode to set up the PC so that you can invoke operation of the program using a single key.)

When the program is started from line 600 it will always ask:

```
CLEAR ALL (Y/N)?
```

Enter the letter 'Y' for yes only if you want all of the elements in the storage array (the memo pad) initialized to the blank condition.

**Note: The option to clear out all the memory elements should always be selected the first time the program is utilized. Failure to do so will result in an error condition when the program is used. This is because the TRS-80 Pocket Computer requires that an array element be assigned before it is accessed. The subroutine at line 750 that assigns a space to each element in the array accomplishes this objective.

Now, if you answer the 'clear all?' query with an 'N' or any input other than a 'Y,' the program will go on to ask:

```
EDIT OR FIND (E/F)?
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Enter an 'E' and press the ENTER key if you want to edit the information currently stored in your electronic memo pad. Remember that editing in this context means adding, changing or deleting items in the data bank.

If you want to search for a particular item using a key word, then you enter the letter 'F' and press the ENTER key.

YOU CAN EDIT THE KEY AND THE ITEM

If you tell the program you want to edit an item, it first asks:

```
KEY #?
```

Tell it the number of the entry in the memo pad that you want to edit (in the range 1 to 20).

The program will then display the information stored under that number. The format of the display in this situation is: entry number, key word, data item, and then the prompt to press the ENTER key, 'C/R.' The procedure of displaying the information before any editing occurs allows you to verify that you have called up the correct entry.

When you have verified the entry, press the ENTER key. Now the unit will ask:

```
NEW KEY?
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If you want to change the key word, simply type in the new one. If you want to leave the present word alone, just press the ENTER key. The program continues by

asking:

NEW DATA?

Again, if you want to alter the data, then type in the new information. If not, just press the ENTER key.

That is all there is to editing information stored in the memo pad. Of course, you use this mode to enter original information since the memo pad is initialized so that all array elements contain a space character.

HOW TO PERFORM A SEARCH

To look for a particular data item under a key word, simply respond to the edit/find query with the letter 'F.' Now the TRS-80 Pocket Computer will display the question:

KEY WORD?

Enter the key word of interest. The program will respond by stepping through each entry and briefly displaying the contents as it goes along using the format: entry number, key word and data item. You don't have to watch the display during this time if you have other things to do. However, the ability to review the contents of memory is often beneficial.

If the key word is found, the pocket computer will issue an audible beep to let you know it has completed its mission. It will then display the information. When you have made note of the data you can press the ENTER key to direct the program back to the edit/find option point.

If the key word you specified is not located in the memo pad, then the message NOT FOUND is issued. Press the ENTER key gets you back to the edit/find option for further operations.

SOME APPLICATIONS

Applications! That's what it is all about, isn't it? Here are some of the practical uses I have been making of the memo pad program.

First of all, I use it as a personal appointment calendar. For instance, I can assign a day of a week as a key word. Then I place the time of day and the initials of the person I am to see as the data item for that entry. Thus, an appointment entry might appear as:

1. FRIDAY=11:00JB

or

2. SATRDAY=1P-WALT

Since you are limited to seven characters for the key word and seven for the data item, it is often necessary to abbreviate. But, it is easy to see that the system is quite adequate as a memory tickler.

Of course, the key word can be anything you want. If you have a lot of appointments in a day, you can change the key word so that it represents hours/minutes during the day. Entries in such a situation might appear as:

1. 10:00=BILL R.
2. 11:15=BRUCE
3. 12:30=LUN/SAL
4. 14:00=AIRPORT

and so forth. Can't remember what you had scheduled for 11:15? Just use the FIND mode, enter the key word as the time, 11:15, and let the TRS-80 Pocket Computer refresh your memory.

```
600 INPUT "CLEAR ALL (Y/N)? ";A$:IF A$="Y" GOSUB 750
610 A$=" ":INPUT "EDIT OR FIND (E/F)? ";A$:IF A$="E" THEN 640
620 IF A$="F" THEN 690
630 GOTO 610
640 INPUT "KEY #? ";A:IF (A>=1)*(A<=20) LET B=26+A:C=46+A:GOTO 660
650 GOTO 640
660 PRINT A;" ";A$(B);"=";A$(C);"  C/R":INPUT "NEW KEY? ";A$:A$(B)=A$
670 INPUT "NEW DATA? ";A$:A$(C)=A$
680 GOTO 610
690 INPUT "KEY WORD? ";A$
700 FOR D=1 TO 20:B=26+D:C=46+D:PAUSE D;" ";A$(B);"=";A$(C):IF A$
    (B)=A$ THEN 730
710 NEXT D:PRINT "NOT FOUND...          C/R"
720 GOTO 610
730 BEEP 1:PRINT D;" ";A$(B);"=";A$(C);"  C/R"
740 GOTO 610
750 FOR A=1 TO 20:A$(26+A)=" ":A$(46+A)=" ":NEXT A:RETURN
```

IT HAS YOUR NUMBER TOO

Or, say you are a salesman. In the morning you make up your mind to make telephone calls to 20 clients during the day. OK, you load up your memo pad by entering the names of your clients and their telephone numbers:

1. DECKERT=8771501
2. PECK=4551950

and so on. Now you work your way down the memo pad list. Each time you make your sales contact, you edit the call out of the machine. When your memo pad is back to all blanks, you have accomplished your sales objectives for the day. The memo pad becomes your personal little task master!

TAKE IT SHOPPING

Make up your shopping list using just the key word portion of each entry for the names of the goods you plan to buy. Then, when you are purchasing items you can enter the actual price of each product as the data portion of each entry. Later, at your leisure, analyze whether or not you got good buys. Keep the list for the next time you go shopping and see how prices change. Do comparison shopping. Make your computer earn its keep!

RECORD TECHNICAL DATA

Use the memo pad to store data you gather on your job. Group the data by key word category if you like. The entry number can be used to automatically order sequential readings.

IT IS YOUR SERVANT

Use the memo pad program to make your life easier and more enjoyable. Think about it. Where can *you* use the pocket computer memo pad to help *you?*

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FROM THE POUCH

An informal poll of about 50 Radio Shack Computer Centers recently resulted in roughly 10 percent of the stores reporting they were out of stock on the TRS-80 Pocket Computer. Virtually every store indicated sales of the little machine were brisk, with most indicating they were selling them as fast as they get them in.

One story heard was that R.S. only got about 5000 units initially — to test the waters so to speak, and had to start pressing for more as soon as they saw the instantaneous warm reception. No doubt they have sold a lot more than 5000 already!

If you are thinking of picking up a TRS-80 Pocket Computer unit and your local store doesn't have one in stock, hurry up and try another one in your area. Not everyone is aware of the potential of these little beauties yet. A few of the regular Radio Shack stores we contacted (versus the R.S. Computer Centers) had yet to sell a single unit. Invariably these stores commented that they were in localities where the general public was "not much into computers yet." However, this was heard more than once in cities where the R.S. Computer Center had reported they were "sold out." So — an outlying store in your area might be stocked while a central shop was begging for more! You can bet R.S. will be working like crazy to keep the supplies up, but they may have a rough time meeting the demand for awhile. There were undoubtably some disappointments during the holiday season, by buyers and sellers alike.

On the matter of program packages for the TRS-80 Pocket Computer, not many stores were even able to demonstrate a package, let alone sell one. We did, however, locate a R.S. Computer Center that was demonstrating a math drill program and a business financial package. Both packages looked very good from what we saw. Word is that Radio Shack is currently releasing about 10 packages with perhaps twice that many currently under development. More information on these packaged programs, including select reviews, will be presented in later issues.

From the rumor mill comes word that R.S. Corporate has some people working on an interface that will let the TRS-80 PC communicate with a regular sized Radio Shack TRS-80. (Take notes in the field, then dump the data for massaging into the big beast back home or at the shop!) There is also scuttlebutt running around that a printer unit is in the works. Sounds exciting!

Meanwhile, Panasonic has announced a HHC — Hand Held Computer with a whole host of accessories. But from what we can tell so far, it is mostly talk. Haven't come across a sole yet with a real live unit.

More next issue....

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